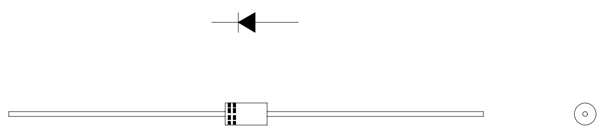
Nihon Inter Electronics Corporation

# FRD Type :11DF4

## FEATURES

* Miniature Size
* Ultra - Fast Recovery
* Low Forward Voltage drop
* Low Power Loss, High Efficiency
* High Surge Capability
* 200 Volts thru 400 Volts Types Available
* 52mm Inside Tape Spacing Package Available

OUTLINE DRAWING



## Maximum Ratings

Approx Net Weight:0.33g

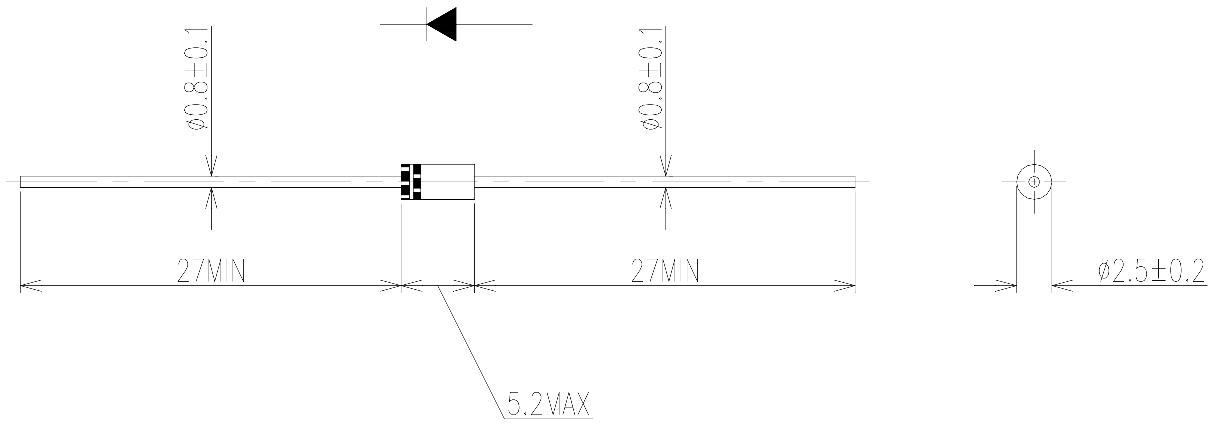
| Rating | Symbol | 11DF4 | | | Unit |
|---|---|---|---|---|---|
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | 400 | | | V |
| Non-repetitive Peak Reverse Voltage | $V_{RSM}$ | 440 | | | V |
| Average Rectified Output Current | $I_O$ | 1.0 | Ta=18℃ ∗1 | 50Hz Half Sine Wave Resistive Load | A |
| | | | Ta=57℃ ∗2 | | |
| RMS Forward Current | $I_{F(RMS)}$ | 1.57 | | | A |
| Surge Forward Current | $I_{FSM}$ | 30 | 50Hz Half Sine Wave,1cycle, Non-repetitive | | A |
| Operating JunctionTemperature Range | Tjw | - 40 to + 150 | | | ℃ |
| Storage Temperature Range | Tstg | - 40 to + 150 | | | ℃ |

## Electrical • Thermal Characteristics

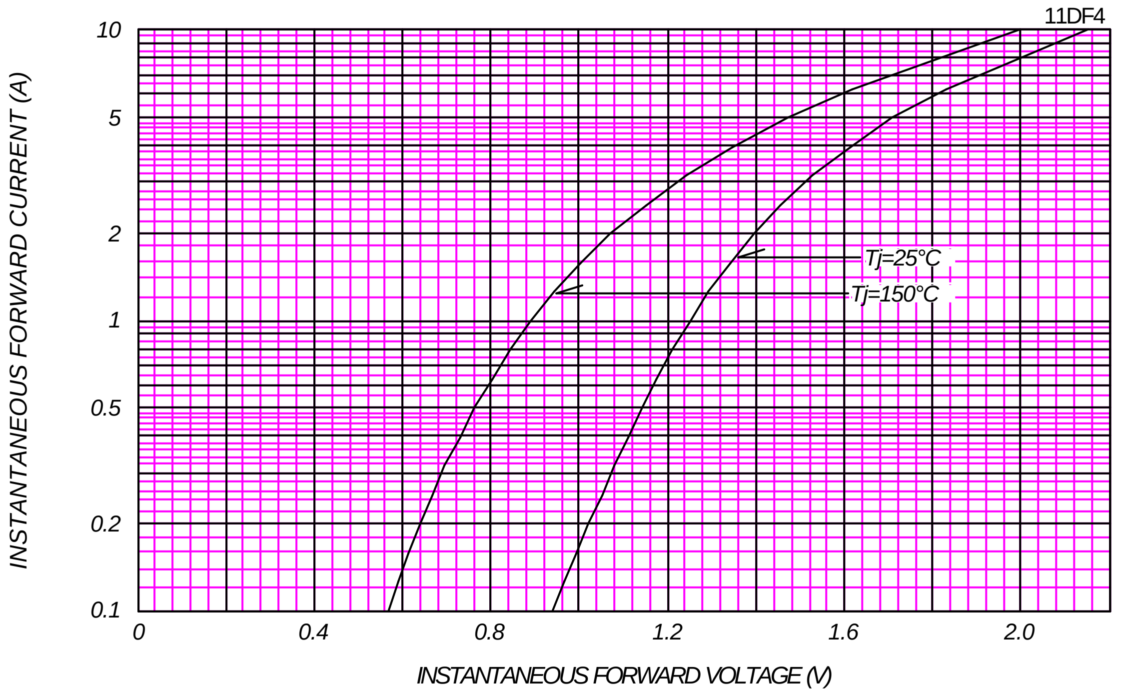
| Characteristics | Symbol | Conditions | | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|---|
| Peak Reverse Current | $I_{RM}$ | Tj= 25℃, $V_{RM}$= $V_{RRM}$ | | - | - | 20 | μA |
| Peak Forward Voltage | $V_{FM}$ | Tj= 25℃, $I_{FM}$= 1.0A | | - | - | 1.25 | V |
| Reverse Recovery Time | trr | -di/dt=50A/μs, $I_{FM}$=1A, Ta=25 | | - | - | 30 | ns |
| Thermal Resistance | Rth(j-a) | Junction to Ambient | ∗1 : Without Fin | - | - | 115 | ℃/W |
| | | | ∗2 : P.C. Board mounted | | | 81 | |

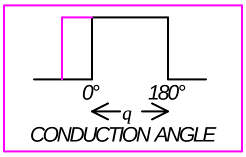
∗1 : Without Fin or P.C. Board
∗2 : P.C. Board mounted(L=8mm,Print Lands =10x10mm,Both Sides)

11DF_ OUTLINE DRAWING (Dimensions in mm)

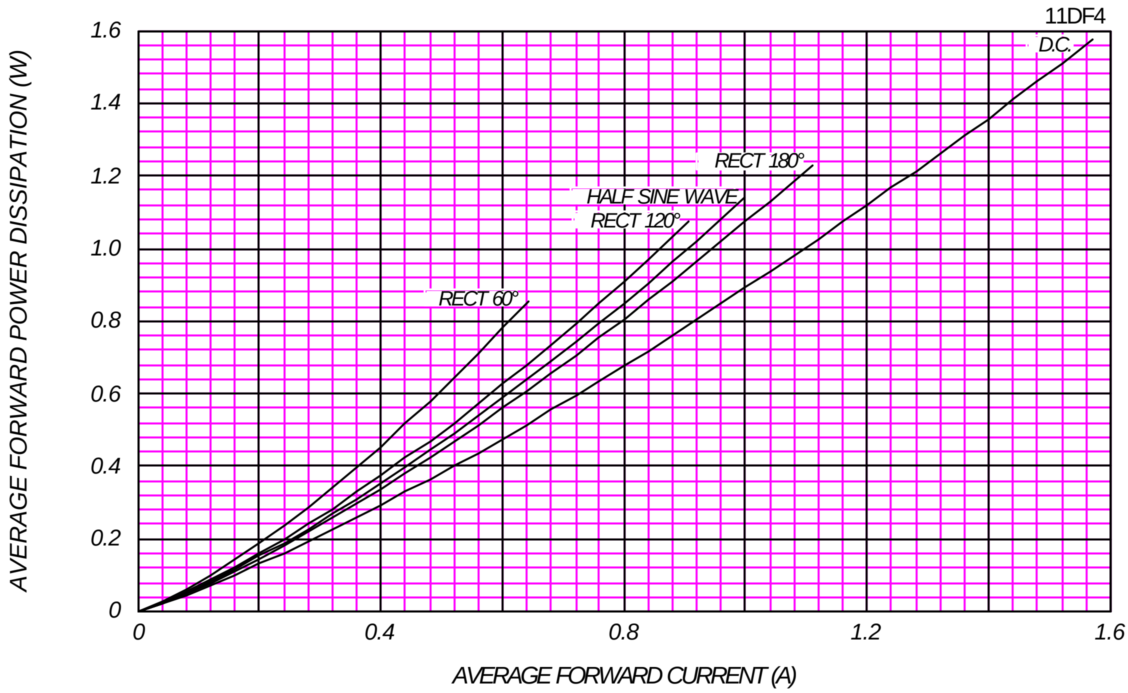


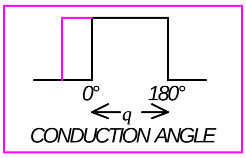
# FORWARD CURRENT VS. VOLTAGE



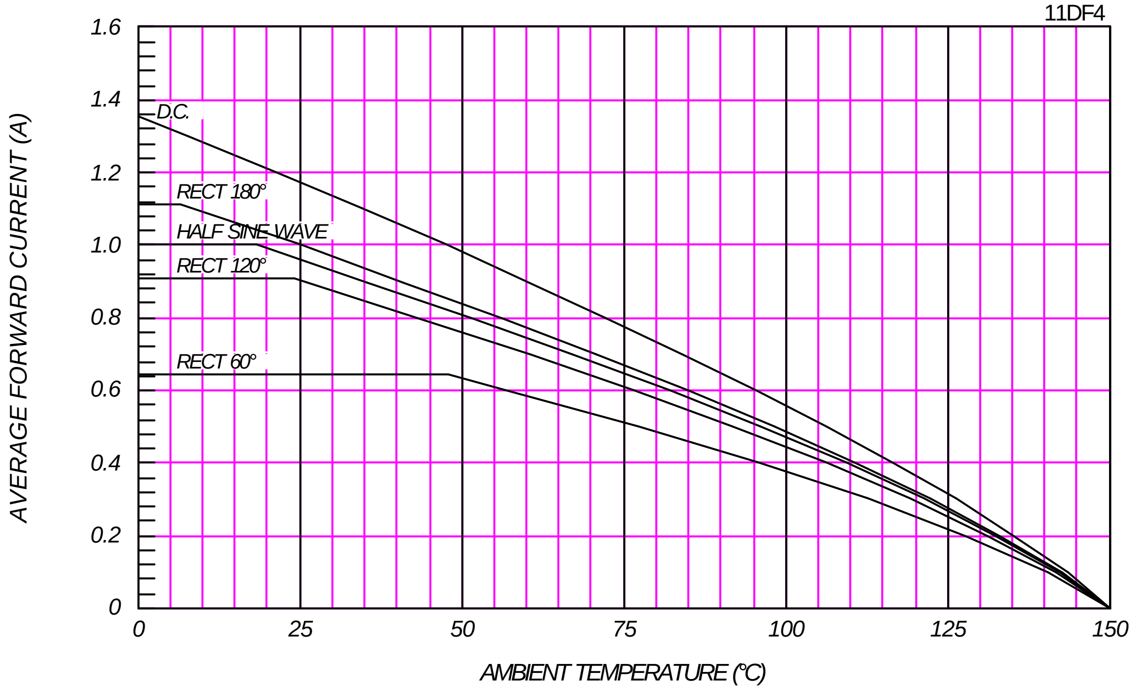

# AVERAGE FORWARD POWER DISSIPATION

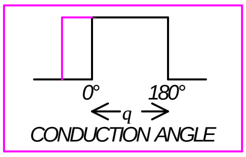





## AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

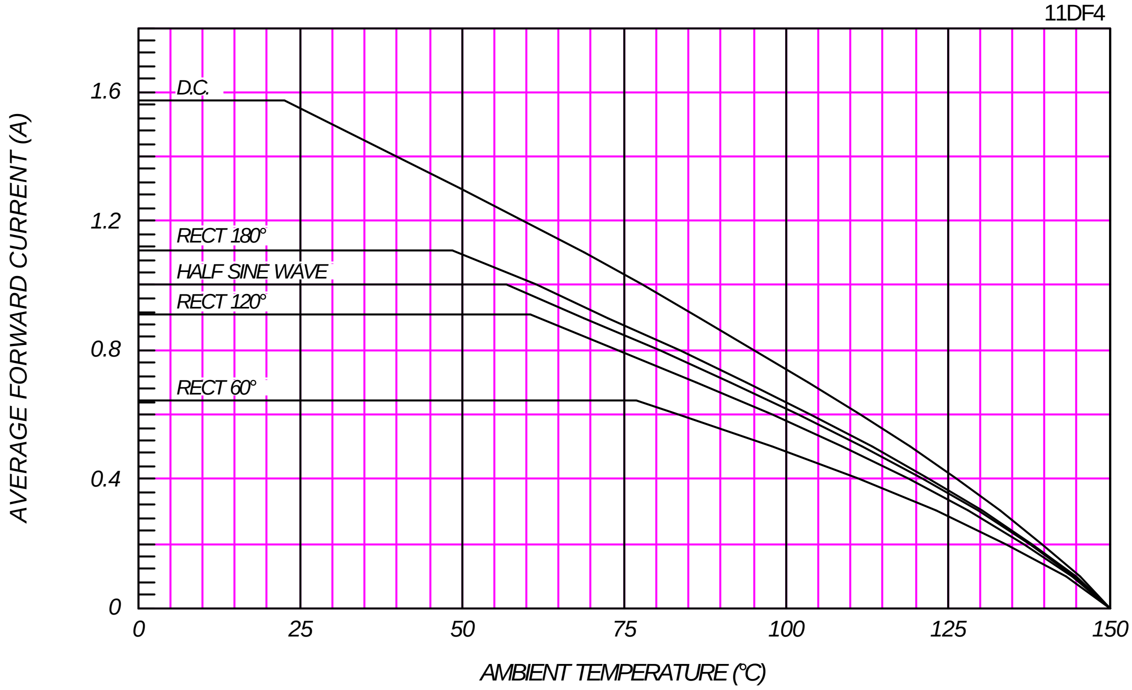
Without Fin or P.C. Board




## AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

P.C. Board mounted (L=8mm,Print Land=10×10mm,Both Sides)



## SURGE CURRENT RATINGS

f=50Hz,Half Sine Wave,Non-Repetitive,No Load

